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ABSTRACT

This handbook establishes procedures and requirements as prescribed by the state department of education and the state building commission for all relocatable-type classroom units in the state of Alabama. It is intended for the use of all superintendents of education, architects, and engineers. (Author/MLF)

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Handbook for Relocatable Classroom Units State of Alabama

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1973

EA 012 899

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FOREWORD

This handbook establishes procedures and requirements as prescribed by the State Department of Education and the State Building Commission for all relocatable type classroom units in the State of Alabama. It is intended for the use of all Superintendents of Education, Architects and Engineers.

Submittals shall be made in accordance with procedures established herein. Approval of plans, specifications, and contract documents by the State Department of Education or the State Building Commission in no way relieves the Architect/Engineer of his responsibility for the accuracy and the completeness of these documents, nor compliance with required codes or ordinances.

Requirements for all projects, other than relocatable type units, shall be the same as for conventional construction and shall conform with all building code requirements as stipulated in the Southern Standard Building Code for the respective type of proposed construction. For buildings of this type under the jurisdiction of the State Building Commission, submissions must be made in accordance with requirements as established in their "Handbook on Architectural Services." Jurisdiction of the State Department of Education and the Building Commission includes all school buildings, regardless of the method of financing.

HANDBOOK FOR RELOCATABLE CLASSROOM UNITS

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1. PURPOSE AND COMPLIANCE

A. To provide a guide for local school authorities and Architects to assist them in determining the feasibility of relocatable units for school needs.

B. To set minimum safety and utility requirements for relocatable units regardless of the manufacturer, vendor, and/or contractor.

C. To assure local school authorities a relocatable unit meeting the above-mentioned requirements and, at the same time, giving them the freedom of selection as to the particular make and model of relocatable unit they desire to place under contract.

D. To set forth certain minimum mandatory requirements that must be complied with by any manufacturer, vendor, and/or contractor supplying a relocatable unit for use in the Public School System of the State of Alabama.

E. All relocatable units must conform to the construction requirements as established in this Handbook, regardless of the method of procurement or acquisition.

2. PROCEDURE

A. Site and Center Approval

1. The local superintendent shall write a letter to the State Superintendent of Education, Attention: Plans and Surveys Section, requesting approval of the project and stating the following:

a. Type of funding.
b. Outlining needs for new facilities.
c. Intended use of proposed facilities.
d. State type of school: K-Elementary, Elementary, Middle, Junior High, High.

B. Budget Approval

1. On or before October 1 of each year, each county and city board of education shall prepare and submit to the State Superintendent of Education the annual budget in compliance with the Code of Alabama 1975, Sections 16-13-140 thru 16-13-147.

2. A county or city superintendent of education, with the approval of his board, shall have authority during the fiscal year to make changes within the budget as provided in the Code of Alabama 1975, Sections 16-13-143. The Director, Division of Administration and Finance, State Department of Education, should be notified of such changes.

3. Federal money shall be approved by State Department of Education personnel in charge of the program. Four sets of schematic plans

shall be submitted to Title I along with the application. Maximum size of sheet should be 8½"x11".

C. Approval of Plans and Specifications

1. Plans shall be prepared by an Architect registered in the State of Alabama.

2. Submit plans for approval to State Agencies listed below:

a. Building Commission - 1 set
b. Department of Education - 1 set

3. SITE LOCATION FOR RELOCATABLE UNITS

A. Before approval will be granted for entering a contract for relocatable units, the State School Architect, State Department of Education, and State Building Commission must be furnished the following information along with the formal application:

1. A plan, to scale, showing:

a. Boundaries of school property.
b. Location of existing buildings and structures.
c. Location of existing utility lines on or adjacent to school property. This includes septic tanks and tile fields.

(Note: Items (a), (b), and (c) probably can be obtained from the site plan used for original school construction.)

B. Items to be considered in determining use and location of relocatable units.

1. Locate unit or units where they will not interfere with future permanent construction if possible.

2. Accessibility to existing rest room and other school facilities. (Might enable omission of plumbing for relocatable units.) Indicate location of nearest accessible toilets on site plan.

3. Accessibility to existing utility lines, drives, bus parking areas, and streets.

4. Do not locate relocatable units over underground utilities if possible. Location over septic tank or sanitary disposal field will not be allowed.

5. Drainage of site and grading.

a. Avoid low spots.
b. Select site so minimum of grading will be required prior to foundation work.

6. Vehicle maneuvering space must be allowed for installation or future removal of relocatable units.

7. Avoid locations near play areas when possible, due to distracting noises.

C. Distance Requirements (State Fire Marshal Requirements)

1. Required minimum distances between a relocatable unit and:

a. Any permanent school building or structure shall be 30 feet.
b. Another relocatable unit shall be 30 feet when the main window side wall of each unit faces the main window side wall of the opposite unit.
c. Another relocatable unit shall be 20 feet when the main window side wall of one unit faces the minor window side wall of the opposite unit.
d. Another relocatable unit shall be 10 feet when units are lined in a row end to end.

D. Fire Precautions

1. Location of relocatable units and utilities on site may be subject to review and approval of the Office of the Fire Marshal for the State of Alabama.

4. MOBILITY

A. To be considered a relocatable unit, the largest component must be of such construction as to permit highway travel and require a minimum of "on site" work before the unit may be used for intended school purposes. Such units must consist of pre-fabricated component parts, or sections, that can be easily joined together or dismantled on the site.

B. A minimum of dismantling work and replacement of parts or components should be required to prepare an "in place" unit for relocation to another school site.

(Note: Some or all manufacturers can supply a unit mounted on a steel frame or chasis. Usually these frames have removable wheels, axles, and towing bars. This arrangement makes relocation to another site considerably easier and more economical. It is suggested that authorities investigate the added cost of this feature and inquire of the manufacturer the complete operational procedures, etc., if the unit is equipped with the steel frame.)

C. The Alabama State Highway Department will not issue a permit for highway travel for any unit or component exceeding 14 feet in width (including eaves or other appurtenances such as temporary travel braces, etc.) nor over 70 feet in length (including the towing unit).

5. DIMENSION REQUIREMENTS

A. The following dimensions must equal or exceed the minimum shown:

1. Floor to ceiling - 8'-0"

2. Exterior width - 20'

3. Clear instructional area - 640 square feet, exclusive of storage, toilets, etc.

4. Instructional area determined by accreditation standards.

6. STRUCTURAL DESIGN

A. Southern Standard Building Code - Coastal Region (latest edition)

1. All units for use in State of Alabama shall meet code for specified region regardless of site location.

2. Foundation, as well as structure, shall meet code.

a. Footings shall be "poured in place" concrete. Piers shall be of concrete and/or masonry construction, reinforced as required. Slab on grade construction will not be allowed.

b. Anchor bolts shall be used to resist uplift.

B. Copies of Southern Standard Building Code may be purchased from the Southern Building Code Congress, 1116 Brown-Marx Building, Birmingham, Alabama.

C. Floor loads (live) required by State of Alabama:

1. Forty pounds per square foot required for classroom use.

2. One hundred twenty-five pounds per square foot required for library use.

D. Certification of Design

1. To be approved by the State School Architect and the State Building Commission. Structural drawings must bear the seal of a structural engineer registered in the State of Alabama.

7. CONSTRUCTION MATERIALS AND STANDARDS

A. Required:

1. Exterior of outside walls shall be approved materials selected for strength, durability, and maintenance.

2. Interior surface of walls, except otherwise noted, shall be non-combustible material, of rigid material to resist warping or deflection, with flame spread of finish not to exceed 25. Finish shall be as noted in Article 17 entitled "Interior Finish."

3. Walls and floors of toilet rooms and also surfaces within 5 feet of lavatories shall be resilient materials.

4. Floors, wall and roof construction shall afford a maximum heat transmission (U factor) of 0.10 exclusive of glass area. Suitable vapor barrier shall be incorporated.

5. When two sections are joined together on the site, rigid connections shall be made and weather-tight joints provided. Use of non-rigid materials is not acceptable for weather closure. Taped joints using plastic or similar material will not be accepted.

6. Unlike metals (example: aluminum and steel) shall be adequately separated by means of waterproof material to prevent electrolysis.

7. Floor covering, unless specifically noted elsewhere, shall be 1/8" thickness and of vinyl asbestos or vinyl material. Covering may be in 12"x12" tiles or yard goods. Cushion backed carpet may be used provided type, fire resistance, and manufacturer is approved by the State Department of Education and the State Building Commission.

8. Roof covering shall be 30 gauge, galvanized steel or equal applied in one piece to each building component, or section, with no fastenings permitted to be applied through the flat topside of the metal. Paint roof with a good grade of aluminized roof coating.

9. A rigid aluminum skirt, including backing if needed for rigidity, extending from floor level to the ground shall be installed after unit is located on the foundation. Skirt shall have a minimum of 4 screened vents 8"x16" and the skirt shall be detachable for future highway travel. Masonry closure between unit and ground will not be accepted. Provide a 24"x18" access panel to crawl space for access to plumbing.

   (Note: Ventilate attic space when required.)

B. Recommended:

1. Exterior finish, fabrication processes, insulation materials, etc., shall be of good quality and consistent with each unit manufacturer's standards--as long as specific specifications and codes are complied with as contained in this booklet.

8. DESIGN DATA, SAMPLES, BROCHURES, ETC.

A. The State School Architect, State Department of Education:

1. Shall be furnished:

a. Samples of wall panels and special materials (when requested).
b. Samples or literature fully describing items as chalkboards, tackboards, plumbing fixtures, hardware, etc..
c. Any design data, technical material, etc., that the manufacturer desires to submit that will be of use in evaluating the merits of his product.

2. Desires to render a fair and impartial opinion concerning material submitted for approval. The right is reserved to require any information, samples, etc., deemed necessary for use in forming an opinion before a decision is rendered as to the acceptability of a product.

3. Reserves the right to make specific exceptions to the specifications and requirements contained in this handbook when such an exception is for the benefit of school authorities. Exceptions will not be made without necessary cause.

9. PERMANENT DATA PLATE

A. Manufacturer shall affix metal data plate by means of rivets or otherwise to each classroom or library unit.

B. The following shall be indented on plate by means of stamping:

1. Name and address of manufacturer.

2. Model number.

3. Month and year of manufacturer.

4. Floor live loads.

5. Certification that unit meets structural design loads of the Southern Standard Building Code - Coastal Region (latest edition).

10. DOORS

A. Exterior Doors

1. Provide two doors in each classroom unit. Locate as remote as practical.

2. Each door shall be as follows:

   a. Minimum 3'-0" x 6'-8" x 1-3/4" metal with 6" wide 2'-6" long view window or with three horizontal lights; glaze with 1/4" thick clear wired or safety glass.
   b. Heavy duty hardware and accessories, etc., as shown below:

      1. Swing shall be to exterior.
      2. Continuous piano hinge with nylon cover on exterior.
      3. Overhead closer (hydraulic), heavy duty adjustable.
      4. Panic hardware.
      5. Weatherstripped, including dust proof metal threshold. (No vinyl strip allowed as integral part of threshold.)

B. Interior Doors

1. For toilet rooms:

   a. Minimum 2'-8" x 6'-8" x 1-3/8"
   b. Have heavy duty hardware composed of:

      1. Butts - 1 pair.
      2. Overhead closer (hydraulic).
      3. Bath lockset with emergency entry feature.

2. For other use:

   a. Teachers' storage, etc., must be of durable construction compatible with general construction of unit containing door.
   b. Equipped with appropriate locksets and hardware.

11. WINDOWS

A. Required:

1. Area of one wall shall have a minimum of 16% of that area composed of operative windows.

2. Wall opposite the wall area described in Item No. 1 above shall be provided with minimum of small ventilator type windows mounted near ceiling.

3. All window glazing shall be DSB glass. (Note: Glazing strips required. Glazing compound not acceptable.)

4. All units shall be weather stripped.

5. All units shall be intermediate grade or better, single or double hung.

12. WINDOW SHADES

A. Furnish for all windows venetian blinds, or roll type shades, as selected by local school authorities.

13. CHALKBOARD AND TACKBOARD

A. Recommend classroom to contain as a minimum:

1. Chalkboard with tray, 16 linear feet x 4 feet high, framed.

2. Tackboard, 16 linear feet x 4 feet high, cork, framed.

3. Six adjustable map rail hooks.

B. Items in A above to be mounted where directed by local school authorities and shown on plans. (Determine this for each unit at time of entering contract.)

14. STORAGE FACILITIES

A. Student coatrack and bookshelf

1. Provide coat hanging space for number of students specified for intended use.

2. Preferably open bar type shelf.

3. Provide brass finished coathooks.

B. Teacher's cabinet

1. Minimum 3' wide x 2' deep x 6'-8" high, divided in half vertically, with rod and shelf on one side and adjustable shelving on other side.

2. Hardware shall be dull chrome or aluminum finish.

3. Provide key lock.

C. Storage cabinet

1. Minimum 3' wide x 1'-4" deep x 6'-8" high with five adjustable shelves.

2. Hardware shall be dull chrome or aluminum finish.

3. Provide lock.

15. STEPS, RAMP, AND LANDING

A. At exterior door (when another door is provided for the handicapped).

1. Provide steps and landing 2' wider than door width. Steps and landing to have a handrail on each side of door. Landing to project minimum of 3'-6" from door.

2. If steps are wooden, lumber shall be pressure treated by Wolmanize or equal process. Field coat with two coats oil paint.

3. Steps and handrails shall be securely anchored to building.

B. At least one entrance shall be usable by persons in wheelchairs.

1. Ramps and landings for the physically handicapped shall comply with requirements as stipulated in Part VI of the "Barrier Free Design Standard" as published by the State Fire Marshal. Some of the requirements are as follows:

a. Ramp shall be a minimum of 48" wide.
b. Ramp shall have a maximum gradient of 1' rise in 12' of run.
c. Ramp and landing shall be constructed of firm, fixed, non-slip material.

1. Concrete surfaces shall be broom finished.
2. If constructed of wood, we recommend the ramp and landing be covered with non-slip rubber matting. Lumber shall be pressure treated by Wolmanize or equal process. Field coat with two coats oil paint.

d. Platform at door shall be level, 5'-0"x5'-0" minimum, extending 1'-0" minimum from the side from which the door opens.
e. Provide a handrail 32" in height and a second rail 18" in height on the sides of the ramp and platform.

C. Required steps and ramps at exits shall be provided before unit or units can be approved for use.

16. METAL CANOPY

A. Provide detachable (for highway travel) metal canopy 2' wider than door. Canopy to project 3'-6" from face of wall.

17. INTERIOR FINISH

A. Classroom paint or pre-finish materials shall be flat, matte, non-gloss, unless noted.

1. Ceiling material shall be non-combustible and shall have a minimum of 85% reflection. (If accoustical materials are used on ceiling, a minimum of 75% reflection will be accepted.)

2. Walls shall have a minimum reflection of 60% to dado or wainscot; wainscot to floor 40%. (Note: Wainscot is not necessarily required.)

3. Floor covering must have a 30% reflective factor.

18. PLUMBING

A. Recommend facilities be provided within unit when:

1. Classroom unit is used by pupils of first four grades.

2. Classroom or library unit is used by pupils of grades 5 through 12, inclusive, when either girls or boys existing rest room facilities are more than 200' from classroom unit. The 200' to be measured as pupil must walk to existing facilities.

B. When plumbing facilities are required, provide the following in each classroom or library unit:

1. For use by grades 1 through 4:

a. Recommend single or one-person room with handicapped provisions.
b. Toilet room shall contain tissue holder and tank type toilet with closed front seat.
c. In the unit, but not within the toilet room, provide:

1. One mirror.
2. One paper towel holder.
3. One liquid soap dispenser.
4. One lavatory complete with gooseneck type faucet (spring action) and drinking fountain type (spring action) bubbler. (Faucet and bubbler shall be separate units.)

2. For use by grades 5 through 12:

a. Recommend single or one-person rooms with handicapped provisions.
b. One toilet room each for boys and girls with:

1. Elongated tank type toilet with open front seat.
2. One tissue holder.

c. In the unit, but not within the toilet rooms, provide:

1. One mirror.
2. One paper towel holder.
3. One liquid soap dispenser.
4. One lavatory complete with gooseneck type faucet (spring action) and drinking fountain type (spring action) bubbler. (Faucet and bubbler shall be separate units.)

C. Supply and Waste Lines Within Unit

1. All water supply lines shall be Type "L" domestic copper.

2. All waste lines shall be drainage DWV copper.

3. Lines of 1 and 2 above shall be stubbed for easy attachment to main lines at school site. End of lines shall be provided with dielectric couplings or unions.

4. All plumbing lines shall be properly protected from freezing by use of adequate insulation.

D. Supply and Waste Lines On Site

1. Water supply to unit site must originate:

   a. At existing school building.
   b. Municipal water main.
   c. Well system.

2. Waste lines must terminate or tie into:

   a. Existing school building sewage line.
   b. Septic tank.
   c. Treatment plant or lagoon.

E. Cut Offs and Clean Outs

1. Provide cut off valve at each toilet, lavatory, and bubbler and at entry of supply to each relocatable unit.

2. Provide sufficient clean outs in waste system to facilitate cleaning from point of origin to point of termination.

F. Compliance with State of Alabama Board of Health

1. Water supply and sewage disposal systems shall be approved by the State Health Department unless connected to a municipal system.

G. Code, Compliance and Certification

1. When plumbing is required, such plumbing within a unit shall meet the requirements of the Southern Standard Plumbing Code.

2. Mechanical drawings shall bear the seal of a mechanical engineer registered in the State of Alabama.

19. HEATING, AIR CONDITIONING AND VENTILATION

A. Design Conditions

1. Inside temperature to be maintained at the following:

a. For heating - a minimum of 72° F. when outside temperature is 10°F.
b. For cooling - between 75°F. and 78°F. dry bulb temperature and a relative humidity of between 50 and 55% when outside temperature is 95°F. (See note below) Inside temperature should be 15° lower than outside temperature with minimum 300 CFM.
c. Mechanical ventilation shall be at a minimum rate of 10 CFM outside air for each 21 square feet of instructional floor area. (See note below)
d. Mechanical ventilation shall be provided in each toilet room.
e. See section on "Required Construction Materials" for "U" factor.

(Note: 1. Conditions set forth in item "b" above for cooling are required if unit is mechanically cooled. Local school authorities should specifically require or omit mechanical cooling in terms of the contract as this is an optional item.
2. Conditions set forth in item "c" above for mechanical ventilation are required whether mechanical cooling is included or omitted from the contract.)

B. Type of Equipment

1. Recommend all mechanical equipment be electrical.

2. Recommend all equipment be contained within the unit and not mounted on concrete pads, etc., on exterior. Equipment shall be fully transportable, allowing unit to be relocated to another site.

3. Heating and cooling may be by use of separate units or by use of combination units.

4. Any units that project through walls shall be easily demountable for highway travel.

5. Equipment shall be of standard American manufacture.

6. Heating and cooling unit shall be a complete factory packaged unit with all required piping and accessories including switches, motor starters, operating and limit controls, safety devices, motor running overload protectors, refrigerant, disposable air filters for return air, vibration isolator mountings, and built-in electric resistance heaters.

C. Operation

1. Control of units shall be by thermostats appropriately located.

2. Sufficient number of outlets and duct work shall be provided to give uniform air distribution and prevent drafts.

3. Air velocities, fan speeds, motor noises, etc., shall be kept to a minimum so as not to interfere with classroom activities.

20. ELECTRICAL

A. Entire installation shall meet the requirements of the National Electrical Code, the National Electrical Safety Code, and local code. Underwriters' label and National Electrical Manufacturer's Association labels are required where applicable.

B. Electrical drawings shall bear the seal of an electrical engineer registered in the State of Alabama.

C. For each relocatable unit:

1. Minimum of 100 amp panel. Panel shall be flush mounted with ample circuits and circuit breakers properly sized according to code and shall have lock on door. Provide two keys. Index for all circuits shall be typed and installed in panel box.

2. Appropriate amperage circuits to heating and/or air conditioning or ventilating equipment.

3. One duplex 110V outlet shall be located on each well of instructional area plus one high on wall for clock. Additional outlets shall be provided when required for special use.

4. Each row of lights shall have individual switch.

5. All wall switches and receptacles shall be flush mounted.

6. Plates for switches and receptacles shall be stainless steel.

7. Provide adequate lighting for toilet rooms and spaces other than instructional area.

8. Instructional area shall be lighted with fluorescent luminaries complete with lamps and louvers to provide a minimum of 75-foot candles at student desk level.

9. All wiring shall be #12 copper in E.M.T. or heavier conduit.

10. Locate main light switches at lock side of exterior doors, 5' above floor. (Switches shall be silent type.)

11. Each unit shall have a weather-head or underground connectors, securely mounted, ready for on-site connection to the permanent power source. Overhead or underground services shall be selected by contracting school authorities.

12. Properly ground electrical system of each unit. This provision will be the responsibility of the supplier or contractor of the relocatable unit.

13. When any equipment or loads are rated at 115/230 volts or 120/240 volts, and such equipment is supplied from 120/280 volts, dry type transformers shall be installed to provide the proper voltage. (Local school authorities should discuss this with the local utility company prior to contracting for any relocatable units.)

14. See section on Heating, Air Conditioning and Ventilating for requirements of those items.

21. FIRE PREVENTION

A. Provide Tri-Class ABC 10 lb. dry chemical extinguisher mounted on wall bracket.

B. All gas appliances and gas piping shall be in compliance with N.F.P.A. No. 54.

C. Storage requirements - Storage in classroom shall be compact and orderly, shall not be within two feet of ceiling, and not so located as to endanger exit from building, and shall not constitute a hazard.

D. Article 11, Exitways, Fire Prevention Code, Maintenance of Section 11.1, Obstructions to Means of Egress. In other than dwellings, no person shall place, store or keep or permit to be placed, stored or kept on or under, or at the bottom of any exit stairway inside or outside, exit hallway, elevator or other means of egress, any materials the presence of burning of which would obstruct or render hazardous egress of persons from building.

E. Southern Standard Building Code, Section 1117, 1117.2 Panic Hardware. The exit doors of schools (except doors of individual school rooms) shall be equipped with latches (fire exit bolts) which release when pressure of not to exceed 15 pounds is applied to the releasing device in direction of exit travel. Such releasing devices may be bars or panels extending not less than two-thirds of the width of the door and placed at heights suitable for service required, but not less than 30 nor more than 44 inches above the floor.

22. PLANS

A. Plans should include the following:

1. Site Plan: The following items should be indicated on the drawings to insure a complete properly designed project even though certain parts of the work may be provided by the owner.

a. Indicate location of unit or units in relation to existing buildings.
b. Indicate connections to electrical, water, gas service, sewer connections, etc., if applicable.
c. Indicate filling, grading, ramps, walks, etc.
d. Indicate existing and new contours at each unit.

2. Floor Plans:

a. Floor plans shall be drawn at a scale of not less than 1/8" = 1'-0".
b. Indicate doors, windows, chalkboards, tackboards, storage facilities, steps, ramp, landing, etc.

3. Elevations:

a. Elevations shall be drawn at the same scale as the floor plans.
b. Indicate the general design, relative grades, steps, ramps, etc.

4. Details: Complete details to clarify all requirements.

a. Wall section, storage facilities, steps, ramp, landings, canopy, etc.
b. Building frame connections at piers.
c. Anchoring system shall be specified or detailed on plans.

5. Mechanical and Electrical Requirements

a. Indicate plumbing, heating, air conditioning, ventilation, electrical, etc., if applicable.

6. General

a. All design data and drawings shall bear the seal of the designing Architect and/or Engineer registered in the State of Alabama.

23. SPECIFICATIONS. Specifications to completely describe all equipment, materials and procedures included in the contract should include the following:

A. Advertisement for Bids: Brief description of project.

B. Bid Form: Each formal quotation or bid for furnishing and erecting one or more relocatable units shall be accompanied by a 5% bid bond or certified cashier's check. Period of bond to be for thirty days.

C. Contract: Clarify to owner and contractor at what stage of construction payments are to be made. Recommend 10% on delivery; 70% on completion and final acceptance; 20% to be retained for thirty days for minor descrepancies.

D. Bonds

1. At time of entering a formal contract, the manufacturer, vendor, and/or contractor shall furnish the school contracting authorities with a 100% performance and payment bond. Period of bond to be for one year after final acceptance.

2. Bonds required by paragraphs "B" and "D1" above shall be issued by a company legally licensed to write such bonds in the State of Alabama.

E. Contract Forms (Contract and bonds): Submit 4 copies to the State Department of Education for approval.

F. Instruction to Bidders

G. General Conditions

H. Wage Rates: Prevailing state wage rates for labor covered for on-site assembly by manufacturer, site work, foundations, etc. Refer to Act No. 700, Regular Session, 1969.

I. Specifications: Construction materials and standards.

24. CONTRACTOR RESPONSIBILITY. Work required of party contracting with school authorities for furnishing and installing one or more relocatable units:

A. Location of each unit on the site according to the approved plan.

B. Hand excavation and fine grading for footings.

C. Construction of footings and piers. (A crawl space of 18 inches minimum is required.) Backfill and hand rake area to be covered by unit.

D. Complete installation of each unit on foundation including:

1. Proper anchorage to foundation and/or tie-downs.

2. Installation of steps, ramps, and landings.

3. Installation of canopies.

4. Installation of metal skirt.

E. Stub-out of utility lines to be 5' minimum so they are easily accessible for permanent tie-in by others.

F. Complete cleaning of interior and exterior of each unit. Clean site area adjacent to unit and leave grounds in neat condition and unit ready for occupancy.

25. SCHOOL AUTHORITY RESPONSIBILITY

A. Do preliminary clearing and/or machine grading and compact the building area to 95% density prior to arrival of relocatable unit contractor.

B. Provide necessary and proper utility lines to tie-in points at each unit and make tie-ins.

(Note: Items called for in paragraphs "A" and "B" above may be performed under separate contract or by the local school forces. If desired, they may be incorporated in the contract with the relocatable unit contractor; however, if this is done, specific details shall be included in the terms of the contract.)

C. Include dates of commencement and completion of work in contract.

D. Include a clause in the contract allowing withholding of 20% of contract amount for a period of 30 days after completion. Withholding of the 20% to be mandatory. Look for deficiencies during this 30-day period and have contractor correct them prior to final payment. Final payment cannot be made until written authorization is given by the State Superintendent of Education.

26. DATA FOR LOCAL SCHOOL AUTHORITIES UPON DELIVERY

A. At time of erection of a relocatable unit, the school official charged with custody of the unit must be furnished a set of plans and specifications. These should clearly delineate procedure to be followed in preparing the unit for highway travel and subsequent "set up" at a new school site.

B. The conditions set forth in paragraph "A" above must be met for each unit that can be relocated and utilized as a separate school facility.

27. SUPERVISION OF CONSTRUCTION

A. Architects shall transmit to the State Department of Education and the State Building Commission copies of their job inspection reports, containing progress reports as well as inspection notes and instructions. These may be combined for submittal at two or three-week intervals except at critical stages of construction.

B. Job inspections shall be made periodically by the State Department of Education and the State Building Commission Technical Staff, usually scheduled according to the Architect's progress report. Items noted will be transmitted to the Architect for appropriate action.

28. FINAL INSPECTIONS

A. Final inspection shall be performed by the State Department of

Education and the State Building Commission. The Architect or his representative shall be present.

B. The Architect shall notify the State Department of Education and the State Building Commission of the date and time of day requested for the final inspection. This notification must reach the State Department of Education and the State Building Commission at least 5 days (preferably more) in advance of the date to be scheduled.

C. Before the date of final inspection by state agencies, the Architect shall have made an inspection in detail and shall state in his notification that the project is ready for final inspection and acceptance by the state agencies.

D. The Architect shall notify the Contractor of the scheduled inspection date and instruct him to provide access to all parts of the building.

29. GUARANTEES AND WARRANTIES

A. Party contracting with school authorities shall:

1. Guarantee all labor, materials, and equipment for a period of one year after final acceptance of units in contract.

2. Furnish the contracting school authorities:

a. All guarantees or warranties furnished by the manufacturers of any equipment or components incorporated in the work of the contract.
b. The standard guarantee or warranty of the manufacturer of the main structural unit. (Before entering a contract, school authorities should consider the terms of the warranty of the unit manufacturer as to time limitations, etc.)

30. FINAL ACCEPTANCE OF COMPLETED PROJECTS

Final approval and acceptance of completed projects by the State Department of Education and the State Building Commission will be accomplished after:

A. Final inspection by the State Department of Education and the State Building Commission has been made and any requirements resulting therefrom have been complied with. The owner shall sign and return one copy of the inspection report to the School Architect to indicate correction of all deficient items as listed in the report.

B. The Architect's own final written approval or acceptance has been received.

C. The notarized certificate of performance of the final completion advertisement, required by law, has been received.

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